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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/604,407  | 07/18/2003  | Jin-Sheng Gong       | REAP0017USA         | 1406             |
| 27765   | 7590        | 08/09/2006           | EXAMINER            |                  |
| NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION<br>P.O. BOX 506<br>MERRIFIELD, VA 22116 |             |                      | WU, XIAO MIN        |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2629                |                  |

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/604,407

**Applicant(s)**

GONG ET AL.

**Examiner**

XIAO M. WU

**Art Unit**

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22, 24, 26-28, 31, 32, 34-36, 38, 40-43, 45-47, 49 and 50 is/are rejected.
- 7) ☒ Claim(s) 23, 25, 29, 30, 33, 37, 39, 44 and 48 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/28/2006 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 22, 24, 26-28, 31-32, 34-36, 38, 40-43, 45-47, 49-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Loveridge et al. (US Patent No. 6,545,688).

As to claims 22, 36, 45, 47, Loveridge discloses a method of frame synchronization for converting a source frame (101, Fig. 1A) to a destination frame (148, Fig. 1A), the source frame being received at a first frame rate (e.g. the source frame rate is F) and the destination frame being outputted at a second frame rate (e.g. the frame rate of the designation source or display), the method comprising the following steps: buffering at least a part of the source frame(col. 2, lines 15-17); determining whether a predetermined condition is satisfied (230, Fig. 2); if the determined condition is satisfied, converting the source frame to the destination frame with a

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first amount of pixel data such that the first frame rate is different from the second frame rate (240, Fig. 2; also see col. 10, lines 22-29); and if the predetermined condition is dissatisfied (230, Fig. 2), converting the source frame to the destination frame with a second amount of pixel data such that the first frame rate is substantially the same as the second frame rate; wherein the first amount is different from the second amount (260, 270, Fig. 2).

As to claims 24, 32, 35, 38, 50, Loveridge discloses the predetermined condition is a time interval between a last horizontal sync signal and a vertical sync signal shorter than a time limit, and the first amount is more than the second amount if the predetermined condition is satisfied (e.g. scaling the image, see col. 9, lines 37-48).

As to claims 26, 40, Loveridge discloses the predetermined condition is an overflow condition, and the first amount is fewer than the second amount if the predetermined condition is satisfied (e.g. down scale of the image, see col. 9, lines 9, lines 9-63)).

As to claim 27, 41, Loveridge discloses the step of determining whether the predetermined condition is satisfied comprises: determining whether the amount of the source frame being buffering is over a maximum level (e.g. determining scaling factor, see col. 9, lines 9-63).

As to claims 28, 42, 43, Loveridge discloses the predetermined condition is an underflow condition, and the first amount is more than the second amount if the predetermined condition is satisfied (e.g. upscale of the image, see col. 9, lines 9-63).

As to claims 31, 46, 51, Loveridge discloses a method of frame synchronization for converting a source frame (101, Fig. 1A) to a destination frame (148, Fig. 1A), the source frame being received at a first frame rate (e.g. the source frame rate is  $F$ ) and the destination frame

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being outputted at a second frame rate (e.g. the frame rate of the designation source or display), the designation frame comprising a plurality of horizontal lines, the method comprising the following steps: buffering at least part of the source frame (col. 2, lines 15-17), determining whether a predetermined condition is satisfied (230, Fig. 2); and if the predetermined condition is satisfied, generating a first horizontal line of the horizontal lines corresponding to a first horizontal sync period and generating a second horizontal lines of the horizontal lines corresponding to a second horizontal sync period; wherein the first horizontal sync period is different from the second horizontal period (see 240, Fig. 2; and also see col.10, line 12-22)

As to claims 34, 49, Loveridge discloses the first frame rate is the same as the second frame rate (270, Fig. 2).

#### ***Allowable Subject Matter***

4. Claims 23, 25, 29-30, 33, 37, 39, 44, 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

5. Applicant's arguments filed 7/28/2006 have been fully considered but they are not persuasive. With respect to the newly submitted claims, please see the new discussion of Loveridge above.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to XIAO M. WU whose telephone number is 571-272-7761. The examiner can normally be reached on 6:30 am to 4:00 pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD HJERPE, can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

x.w.

August 7, 2006

  
**XIAO M. WU**  
**Primary Examiner**  
**Art Unit 2629**